

REMARKS/ARGUMENTS

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A. Summary of the Amendment

This is a full and timely response to the non-final Office Action dated August 7, 2006. Reexamination and reconsideration are courteously requested. By way of the present amendment, claims 13, 15 to 16, and 19 are amended. Furthermore, claims 14 and 18 are canceled, and claims 21 to 25 are newly added. Thus, claims 1 to 25 remain pending for the Examiner's consideration, with claims 1, 8, 11, 13, 16, 21, and 23 being independent claims.

B. Defective Oath/Declaration

The Oath/Declaration filed with this Reissue Application is allegedly defective for not stating that all errors being corrected in this application arose without any deceptive intent on the part of Applicant. Further, claims 1 to 20 are rejected as being based on a defective reissue oath. An unsigned substitute oath/declaration is filed herewith, including all appropriate language for compliance with 37 C.F.R. § 1.175, and will be executed and filed shortly hereafter.

C. Information Disclosure Statement (IDS)

It is acknowledged that the only cited reference, U.S. Patent No. 6,140,456 (Lee), on the IDS citation sheet filed 3/3/2005 is cited by the Examiner in the Office Action and the PTO-892 form attached thereto. Thus, it is not believed to be necessary for Applicant to resubmit the 3/3/2005 IDS.

D. Allowable Subject Matter

The examiner has acknowledged that claims 8 to 10 are directed to allowable subject matter. Applicants thank the Examiner for a through examination of these claims.

E. Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 16 to 20 are rejected as being indefinite for lack of antecedent basis for the term "said graded layer." The present amendment overcomes this rejection by changing the term "graded" to "transition."

F. Rejections Under 35 U.S.C. § 102(b)

Claims 16 to 17 are rejected as being anticipated by Lee. These rejections are respectfully traversed. By way of the present amendment, claim 16 (and claim 17 by way of its dependency from claim 16) is amended to recite a method for depositing a barrier coating on a surface to protect an underlying *elastic polymeric* substrate. According to the method, a surface of the elastic polymeric substrate is exposed to a first parylene polymer in vapor phase to form a first layer of said first parylene polymer, and then a subsequent transition layer and a third layer of a second parylene polymer are formed over the first parylene polymer in order to further protect the elastic polymeric substrate. In contrast, Lee is directed to building thin films on semiconductor substrates such as SiO₂. Nowhere does Lee teach or suggest that parylene polymers, and particularly the multi-layered parylene polymers of the present invention, could or should be formed on elastic polymeric substrates for their protection. For at least this reason, the rejections under 35 U.S.C. § 102(b) should be withdrawn.

G. Rejections Under 35 U.S.C. § 103(a)

Claims 1 to 7, and 11 to 20 are rejected as being unpatentable over U.S. Patent No. 5879808 (Wary) in view of U.S. Patent No. 5075174 (Pyle), JP 04-173848 (JP-848) and Lee. These rejections are respectfully traversed.

Regarding claims 1 to 7, independent claim 1 recites depositing a first layer of parylene N on a clean surface portion of a polymeric substrate, and then depositing a second layer of parylene C over the first layer. In the Office Action, it is conceded that Wary, Pyle, and JP-848 fail to teach or suggest depositing a plurality of different parylene materials in a layered fashion. For this purpose, Lee is cited for disclosing a method by which different parylene materials are deposited in layers (col. 22, line 60 to col. 23, line 17). However, nowhere in Lee is there any discussion of depositing parylene N directly on a clean polymer substrate surface, and then depositing parylene C over the parylene N.

In view of the deficiency of Lee to disclose the deposition of specific parylene materials in the particular order recited in claim 1, a person of skill in the pertinent art would not be motivated to reach the present invention absent some complementary teaching from what is known in the art. However, Pyle is the only cited reference that makes any mention of different types of parylene materials such as parylene N and parylene C (col. 2, lines 24 to 49). Yet like Lee, Pyle fails to discuss any usefulness produced from using any of these particular parylene materials in any particular layered fashion. Pyle does not disclose any particular usefulness for any one class of parylene materials (N, D, or C) over another class of parylene materials. Indeed, none of the other prior art references provide motivation for selecting parylene N as a substrate-contacting layer, or for selecting parylene C as an outer layer. It is therefore clear that nowhere in the cited prior art is there sufficient motivation for a person of skill in the art to deposit a first layer of parylene N on a clean surface portion of a polymeric substrate, and then deposit a second layer of parylene C over the first layer. For at least this reason, the rejection of claims 1 to 7 should be withdrawn.

Regarding claims 11 to 12, independent claim 11 recites exposing a surface to parylene N in vapor phase to form a first layer of parylene N polymer, shifting the exposure of the

pyrlene N to parylene C in vapor phase to form a graded layer comprising a transitional mixture of parylene N and parylene C, and then exposing the graded layer to parylene C in vapor form in the absence of parylene N to form a third layer of parylene C polymer on the graded layer. As previously discussed, none of the cited prior art teaches or suggests using any of these particular parylene materials in any particular layered fashion. It is therefore clear that nowhere in the cited prior art is there sufficient motivation for a person of skill in the art to deposit the parylene N and C layers and graded layer as recited in claim 11. For at least this reason, the rejection of claims 11 to 12 should be withdrawn.

Regarding claims 13 to 25, each of independent claims 13 and 16 recites that parylene C is selected as a second or outer layer, and each of independent claims 21 and 23 recites that parylene N is selected as a first or inner layer formed directly on a substrate. The reason for this deposition order is because, as taught in the present specification, the present inventors discovered that parylene N has particularly high bonding properties, and parylene C has particularly high chemical resistance properties. As previously discussed, nowhere in the cited prior art is there any teaching or suggestion that would motivate a person of ordinary skill in the art to select parylene N over other parylenes as an inner bonding layer, or to select parylene C over other parylenes as an outer layer for chemical resistance. For at least these reasons, the rejections of claims 13 to 20 should be withdrawn, and newly added claims 21 to 25 should be allowed.

H. Conclusion


In view of Applicant's amendments and remarks, it is respectfully submitted that Examiner's objections and rejections have been overcome. Accordingly, Applicants respectfully submit that the application is now in condition for allowance, and such allowance is therefore earnestly requested. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the Applicants attorneys at the below-listed telephone number.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

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